



CIVIL AERONAUTICS ADMINISTRATION, LOS ANGELES, CALIFORNIA

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### PROBLEMS OF JET TRANSPORTATION

While present day commercial aircraft speeds are three times as great as those in operation twenty years ago, man's insatiable desire to get somewhere else in as short a time as possible will quite possibly result in doubling our present 300 mph cruising speeds within the next decade.

This dream of but a few years ago will shortly be a reality only because of the revolutionary design changes in aircraft powerplants which have taken place during the last six to eight years. During World War II, Commander Whittle of the British Royal Air Force brought forth a gasoline engine that employed entirely different principles than the conventional reciprocating engine and, in the few short years that have elapsed since the first crude model was run, great progress has been made in its development so that we now have turbine engines which develop 2 to 3 times as much thrust as the largest engines of the conventional type.

Although the turbine engine originated in England, all the leading military powers are using it in their latest models from fighters to bombers. U. S. aircraft manufacturers state that they have produced many more turbine powered commercial airplanes than any other country - let us hope they are correct in their statement.

Although we have outstripped other countries in building turbine powered military airplanes, we have let both England and Canada beat us to the punch in the matter of designing and building turbine powered commercial airplanes. The reason for this may be the economics of the problem of who's going to pay the bill. It would probably cost twenty-five million dollars or more to produce a new model airliner powered with turbo-jet engines. Since most of this initial expenditure would be development cost with nothing tangible to show for it, it can be readily seen that it would take a sizeable order - perhaps 100 airplanes or more - before the manufacturer could get out of the "red". The English manufacturer doesn't have to worry about this ledger balance since his government grants him subsidies that will prevent him suffering any loss.

Like most new mechanical devices, the turbine engine is going through development difficulties. Since it is such a radical departure from the conventional piston engine, there have been many new problems arise that were not foreseen. One of them is a metallurgical problem of developing alloys that will withstand the extremely

(Continued on next page)

high temperatures to which various components of these engines are subjected. There are other problems induced by the other extreme in temperature which is common to the high altitudes at which these airplanes will operate. At 40,000 ft. altitude the temperatures may be as low as  $-80^{\circ}$  F. These low temperatures not only make adequate cabin heating systems more difficult to design but also adversely affect many mechanical parts. Control cables contract and get tight, pulleys freeze up, lubricating oil will congeal - nothing mechanical operates efficiently at such low temperatures.

There are many more problems confronting the design engineer. One of these, and a very important one from the safety angle, is the possibility of explosive decompression at high altitude. If the door latches failed to hold the cabin door closed, as recently happened on the East Coast, or if a window failed or if for any reason the fuselage skin were ruptured, any of which would cause sudden loss of cabin pressure while at 40,000 ft., the effect could easily be fatal to all the passengers.

The notoriously high fuel consumption of turbine engines is quite a problem although continuous improvements in fuel economy are being made. It will pose quite a problem to provide room for the large quantities of fuel necessary since turbine powered airplane wings will be much thinner than wings of present airplanes and, in addition, will need to be "beefed up" to take care of the higher stresses resulting from the higher operating speeds, all of which will result in less room for fuel tanks. Since turbine engines operate most efficiently at high altitudes and power drops off and fuel consumption zooms up as the operating level comes down, it will be a very serious matter to lose an engine, especially on a trans-ocean flight. The multi turbine-jet powered airplane losing an engine in the middle of an over-ocean flight is likely to undershoot his intended landing area not by a couple of hundred feet, but by several hundred miles!

The designer of the turbine powered transport will not solve all the problems associated with this type of airplane. Some of them will be passed on to the operator. We can probably expect somewhat higher landing speeds without the advantage of reverse thrust propellers to shorten the landing roll except on the turbo-propeller airplanes which will be a "slower breed of cats". The turbo-jet engines have poor initial acceleration and generally poor take-off performance. The loss of power at high outside air temperatures is 2 to 3 times as great as on the power of reciprocating engines. The extremely high pressures and temperatures from the exhausts of turbine engines will be far more unpleasant than the breeze that blows the hats off the spectators standing in the vicinity of the loading gates at airline terminals when airplanes taxi out for take-off, and may necessitate developing new ground handling techniques.

From the foregoing it might appear that nothing good can be said for this new powerplant that basically is so much more simple than the reciprocating engine. However, this is not the case. In many ways, it has the edge on the conventional piston engine. There are turbine-jet engines on the test stands which develop three times as much power as our largest piston engines. These engines will weigh one-half less in pounds per h.p. than our present engines and will have only one-third as many parts. The airplanes they will power will be almost vibration and noise free and will travel twice as fast. While time between engine overhauls is very low at present, improvements in materials and design will gradually increase these between overhaul times. In comparison to piston engines, overhauls will involve considerably less time, equipment, material, and labor. (Continued on page 4 )



## REGIONAL ADMINISTRATOR'S COLUMN

There is fighting going on in Korea. Perhaps you have a friend or a relative who is already in military service and in the combat area. The natural inclination for you, and perhaps for many others, is to drop everything, rush to a recruiting office, and volunteer for military service. But let's try to analyze the situation without any hysteria.

Now, before we get into our discussion I want it clearly understood that I am not approaching this subject with any lack of patriotism. After all, I was in two World Wars and I am still an Air Force Reserve Officer. Certainly I would not advocate delay or deferred action to obstruct our best national effort. Alright, now what is the situation?

1. At the request of the United Nations we are acting as a police force (with other nations) to reestablish peace in a war torn area.
2. Some increase in military manpower and material over and above the regular Armed Forces strength is indicated to be necessary. Limited numbers of National Guard and Organized Reserves probably will be called to extended active duty.
3. In times of emergency, mobilization of industry and civilian activities closely related to military programs is essential.
4. CAA now performs a number of functions which the military is insistent be continued intact.
5. Action is in process to militarize CAA. Agreement has been reached between CAA and the Department of National Defense and implementing legislation is before the Congress. Prompt action is anticipated.
6. Pending final action on militarization of CAA, the agency is not voluntarily releasing people to other military services unless it is obvious that the special ability of a person is of greater value to the requesting agency than to CAA.
7. When CAA is militarized for this or any other national emergency, you can stay with CAA and be a war veteran the same as though you were in the Army, Navy, or Air Force, provided, of course, the CAA function you are connected with is continued and it appears that most of them will be.
8. For CAA people who presently have military reserve status, each individual situation will be considered to arrive at the best decision in the national interest and that of the individual. I understand a temporary deferment period has been requested for CAA people in order to make this study. Of course, in the interim, if a person actually receives orders to active duty he will have to comply.

There will be other problems arise, too, such as the one that confronted the airplane designer who, twiddling his slide rule, remarked, "I have designed and built an airplane with a speed of 25,000 mph, now I can fly around the world in one hour." "Nope," said a joker in his audience, "it will take you three hours." "How do you arrive at that time," asked the engineer, "my airplane flies at 25,000 mph and it is 25,000 miles around the world, therefore, it will take me one hour to circle the world." "Nope", said the joker, "it still takes one hour to get to the airport and another hour to get back to town."

### CLASSIFICATION TAKES TO THE AIR

Our Classification Analyst, Miss Virginia Klose, is riding high these days, literally. After discovering that she is taking private flying lessons, we asked her to write an article telling us just how the student pilot feels during the first few lessons. The following is Miss Klose's account of the impressions she has gained to date.

Fair Warning!! Don't go out and obtain three hours' dual flying time. You too, may be asked to write an article on your personal reactions to flying, why you wanted to do it. That's the spot I'm in at the present time and immediately after the assignment, I dashed out for another flying lesson so I could attempt to write more "learnedly"!! That makes a grand total of four long hours.

This same issue will contain an article by Morton J. Brown, Chief, Flight Engineering Branch, on his impressions of his recent first jet piloting. How diversified can any one group of articles get? Somehow or other, the humor of the thing (two extremes) appeals to me, but I frankly wonder if you are interested in my limited experience. Anyway, here goes!!

Recently, Mr. Marriott and Mr. Beeman went to Palmdale to ferry back an aircraft left there due to weather. Mrs. Eleanor Main and I were given the opportunity to accompany them. On the return trip from Palmdale, I accompanied Mr. Beeman in the Navion. As we climbed into the Navion, Mr. Beeman jokingly, I thought, commented, "All right, now fly me back." I soon found out that Mr. Beeman wasn't joking. Instead, the flight back turned into what constituted my first flying lesson. To my amazement, after about five minutes in the air, as a result of Mr. Beeman's rapid fire instructions, I was actually "piloting" the plane.

When we reached Santa Monica airfield, I still didn't quite believe that I had been piloting the Navion, but the resulting excitement carried me for several days and I was convinced more than ever that this was something I wanted to do. The cautious side of me kept throwing out ifs, ands, and buts -- it was too expensive; I could never learn; I didn't have the time, etc.

Little by little, I began to realize that learning to fly wasn't too impossible after all, it was like anything else. If you really want to do it badly enough, you could. Sure it seems a little on the expensive side -- \$11 an hour dual, \$7.50 solo, 55 cents an hour ground school. The \$11 an hour dual seems steep, particularly in terms of actually paying it out, but not when I think of it from the flight instructor's angle. In his shoes, I'd probably consider myself vastly underpaid. There's a rumor around that ground school isn't exactly necessary;

that you don't need it. But I have already found that my 27 hours ground school instruction is extremely helpful and that it gives a greater meaning to the time spent in flight.

My next venture was enrolling in a course at Universal Flyers, Culver City. The first initiation to the flight end of the bargain was a thirty minute orientation trip with the man who was to be my instructor, John Taylor. Although apparently you are usually checked out faster in an Aeronca due to the tandem arrangement of student in front and instructor immediately behind resulting in better visibility, etc, Mr. Taylor decided that the Taylorcraft (this side by side seating arrangement) would be more typical of the aircraft I probably would be flying and this was the best ship with which to learn.

My first impression of the Taylorcraft was: "How little can these things get?" Alongside this, the Navion was a big ship. The thrill I had experienced in piloting the Navion was almost equalled by this orientation period. I was surprised, but very pleased, to find that my thirty minutes was duly logged, and I now had my logbook placed in the same niche with the rest of the student "pilots".

Taking my thirty minutes flying time, and the memory of my logbook with me, I showed up at the scheduled time of 7:00 p.m. to enroll in ground school. This turned out to be very much like your first day at school. You were registered, the type of course that you were taking was determined, and you received your issuance of books. Class turned out to consist of 23 fellows and one gal -- me. Of the 24 who enrolled that night, four were working for private pilots licenses, and the balance for commercial. The full ground school course consists of 200 hours, classes being conducted three nights a week, three hours a night. Although CAA approved ground school curriculum for a private license is a minimum of 50 hours, upon the advice of the ground school instructor, my time will probably run 75 to 100 hours. I plan to attend the first classes of each course that is started, attempting to secure some basic information on every subject and attend all sessions on such subjects as navigation and meteorology.

My ignorance was shared by a few other ground school students. Those who had considerable experience and already had many hours flying time to their credit were both anxious to be helpful in every way possible and still assumed the attitude that they too had a lot to learn, thus resulting in easy classroom discussion with no one feeling awkward about asking questions.

At first, one of the things that worried me was the fact that I must do this more or less on the installment plan or pay-as-you-go. This would mean that considerable periods of time would elapse between each flying lesson and accordingly that I must put in a greater number of hours flying. Speaking from my definitely limited experience, however, I find that this is not the problem that I had pictured. The satisfaction, the pleasure, and pure enjoyment that I have had to date have more than made up for any qualms I may have had.

Although I don't quite feel like the fellow, so aptly described by the ground instructor, who approaches a Taylorcraft wearing goggles and a scarf as standard equipment, on one or two occasions, I definitely felt that a ladder or an anchor might be listed as essential. The ladder would have been handy a couple of times when we were doing simulated stalls and the anchor during the lesson that was taken when the wind sock was standing straight out. Although I was aware of the lightness of the Taylorcraft, on that day, it was proved to me beyond a doubt.

It is a little early in the game to have formed clear reactions or impressions. However, the first time at the controls instilled in me a distinct respect for the moods and characteristics of a Taylorcraft and I assume I would feel the same about any aircraft I might fly now or in the future. One of the first really strong impressions of which I was conscious was the difference in the ship when taxiing down the runway, the change when sufficient speed is gained, and the tail of the plane comes up and it is partially airborne, and then the complete change when the ship is airborne. I soon learned that the "art" of straight and level flying is not easy and, in my case, I had to watch out for a tendency to cross-control.

The difference in the operation of the rudder pedals when in the air as against while in motion on the ground both tricks me up and amazes me. Learning to control the aircraft with my feet instead of "steering" with the wheel is a major project at the moment, as is the coordination of control between use of the wheel and rudder pedals. In rolling out of a steep turn, although my first impulse is to straighten it out with a turn of the wheel, the reaction of the aircraft tells me less use of aileron and more rudder.

A lesson taken under low overcast conditions made the letters VFR take on added meaning. After waiting about an hour for the ceiling to lift sufficiently we finally got off the ground. While the instructor explained to me why we had to watch our altitude and make certain we didn't climb into the overcast, it really wasn't necessary. One look at that stuff and I knew I'd always be much happier with good ground visibility and the horizon in plain sight.

Apparently most students solo after eight hours dual instruction. With only four more hours dual left, that doesn't even sound reasonable to me. Some of the other students have told me they experienced the same feeling but soloed when the time came. Hope they're right. I may never reach the "solo stage" but it has been fun trying.

#### REGIONAL ADMINISTRATOR'S COLUMN (Continued from Page 3)

9. After CAA militarization, transfers will still be possible but the essential functions of CAA can be continued in the interest of national defense with a reasonably stabilized staff of experienced personnel.
10. CAA, when militarized, will itself be a part of the Department of Defense.

If the foregoing statement of the situation as I understand it has helped you to analyze your personal problem, and arrive at your own decision, then it has certainly been worthwhile.

#### JET FLYING

The following article covering piloting of jet aircraft was written by Morton J. Brown, Chief, Flight Test Engineering Branch, who recently completed a course in jet flying at Wright-Patterson Air Force Base, Dayton, Ohio.

Recently I had the opportunity of representing the CAA as a student at the Air Forces' Experimental Test Pilot School located at Patterson Field, Wright-Patterson Air Force Base, Dayton, Ohio. This course consisted of flight

characteristics evaluation of several of the Air Forces' aircraft including the F-51 and the F-80.

Having the opportunity to qualify in the F-80 aircraft has given me great satisfaction in realizing that this aircraft is very simple to fly. Explaining how the Air Force qualifies a pilot in the fighter type aircraft is quite a detailed process. Primarily the Air Force require as a prerequisite before qualifying in any fighter type aircraft, that the pilot be indoctrinated on altitude flying by experiencing him to an altitude pressure chamber. This familiarizes the pilot with the operation of both a demand type oxygen mask and pressure demand masks, the emergency procedures to use in high altitude bail-outs, and the demonstration of the effects of inoxia. After qualifying in the altitude chamber, the pilot is required to thoroughly study the technical orders pertaining to the aircraft and to answer a questionnaire on the aircraft regarding the various systems and the operating procedures, both normal and emergency. After completion of this questionnaire, an instructor pilot gives the pilot a cockpit check. These details are a routine matter and were accomplished within a day or two.

The first cockpit check took place in the hangar at Patterson Field in an F-80 which was setting on jacks, and it was during this cockpit check that things began to get complicated. The Flight Test School had instrumented the F-80 with different instruments than those described in the technical orders and it was realized that all the descriptions studied would have to be restudied. The only particular thing that the instructor stressed during the oral cockpit checkout was starting procedures, explaining that the airplane had peculiar take-off characteristics to which particular attention should be paid for the first few flights. At the conclusion of this fifteen minute briefing I was taken to an F-80 on the flight line which had a different cockpit arrangement and with these differences explained I was readied for my first flight.

At this point, I began to see and realize some of the things that many of the pilots talked about. Although I was aware that the turbine jet engine used a lot of fuel, I was still further impressed at the amount of fuel consumed before take-off. The Air Force has established procedures on their jet aircraft to reduce the amount of take-off time to a minimum. Everything is set and adjusted for take-off on the flight line before the engine is started - the dive flap is retracted, the take-off flaps are extended to 80% of the travel, trim tab is set, radio is checked and the pilot must make sure that he is all ready, seat adjusted and oxygen mask connected before starting the engine. Even then, when the engine is started and the aircraft is taxied out it is possible to use from thirty to forty gallons of fuel before the actual take-off run can be made. Airport traffic control gives priority to the jets because of this high fuel consumption.

The school at Patterson Field does not use external wingtip tanks on the F-80 because the primary purpose is flight test and not long range flying. The F-80 is equipped with a fuel counter on the instrument panel which is set before take-off at 420 gallons or for the applicable fuel load in the aircraft. This fuel counter is very impressive - it keeps clicking away gallons about as fast as a watch ticks off seconds.

Many people have described the flying of this type aircraft as wonderful because it is silent, however, I found it to be the contrary. I felt no particular vibration but experienced a high pitched whine from the turbine engine which sounded like escaping steam from a pipe, and at high speeds this sound of the engine is replaced with the high pitch sound from air passing over the aircraft.

At various speeds, this sound changes - for instance, at 300 mph there is a definite noticeable rumble caused by the turbulent air in the intake ducts into the engine. There is still another distinctive sound as the airplane is stalled at about 95 mph when the turbine wheel rumbles. This wheel rumble is caused by the turbine wheel stalling before the aircraft completely stalls.

The take-off characteristics are decidedly impressive in that the initial start is rather slow and a considerable amount of distance is used in obtaining take-off speed at 110 mph. At this point, the airplane accelerates initially rather slowly, but the astounding feeling to a pilot is that as the F-80 accelerates to a faster speed, it seems to climb faster. In a conventional fighter such as an F-51, the climb speed is normally 180 mph. In the F-80 the flaps are retracted at this speed and it climbs faster as it goes faster until at a speed of 290 mph, which is the best rate of climb speed, it seems that the more you depress the nose the faster the airplane climbs.

The F-80 is equipped with a dive flap which can be extended at any speed to slow the airplane. After attaining the desired altitude, there is very little to do as the simplicity of the engine indications and control of the aircraft is very easy.

Most of the flights conducted at Patterson Field are to determine characteristics by side-slipping the airplane, stalling the airplane, evaluating its directional stability characteristics and its handling characteristics at the various speeds throughout its permissible speed range.

These particular F-80's were placarded at 580 mph or a mach number of .8. They were equipped with both an airspeed indicator and a mach meter and for performance evaluation purposes, the engine tachometer was calibrated in revolutions per minute instead of percent of maximum revolutions.

Normally most jet pilots refer to their power as 100% or 96% and so on. With this rpm indicator, a fuel pressure gauge and a tailpipe temperature gauge there is nothing else to watch except that you do not exceed the permissible speeds.

The elevator trim tab operates from a button on the control stick which controls the trim tab electrically - for nose down, the button is just pushed up with the thumb, and for nose up, the button is pushed down with the thumb. This trim tab is very effective and in operating the aircraft you click the button with the thumb for the direction desired. It is very easy to over control since if the switch is depressed with the thumb and held in that position, considerable trim tab control will be applied and the change in direction of the aircraft will be rapid. For example, in a turn at relatively high speeds, say 450 mph, if the trim tab button is held down, it is possible to over control enough to cause the pilot to black out.

Another characteristic which is common to all fighters, but is classified as a higher performance characteristic in a jet fighter is the rate of roll of the aircraft. The F-80 aircraft with aileron boost controls does not roll as fast as some of the more recently developed jet fighters, but surely gives you a thrill when attempting aileron rolls in any rolling maneuver. The F-80 does not incorporate a variable control over this boost and at high altitude it is

noticeable that the boost control of the ailerons overcontrols the aircraft so that it is rather difficult to fly the aircraft straight and level.

Landing the aircraft is relatively simple in comparison to reciprocating fighters such as the F-51. Because of the high fuel consumption most pilots use a procedure of making their landing pattern close to the field and advising the tower by radio that they are a jet aircraft and expect priority in landing.

In the landing of the F-80, compared to conventional propeller driven craft, the absence of a propeller which has a considerable amount of drag on the conventional airplane is quite noticeable. When the power is reduced, the F-80 does not seem to slow down as readily as a reciprocal fighter. It seems that after the airplane makes ground contact at about 120 mph it goes faster and it is quite possible, by using excessive braking, to cause blow outs. Stopping the turbine jet engine is very simple. There is no propeller to run down to certain settings; the pilot does not have to pay any attention to the temperatures and does not have to be afraid of hydraulicing the engine; he merely pulls the throttle back to the stop and the engine quits giving you the sensation of turning down a wick in a kerosene lamp.

Any pilot will get quite a thrill when he flies high performance fighters and all the pilots that I talked to who have flown the F-80 agree that it is a wonderful flying aircraft. Keeping in mind when they fly it of the available speed that they have at their command, I am sure that any pilot could qualify in the F-80 and fly it much easier than a lot of reciprocal engine fighters.

#### PERSONALITY OF THE MONTH

##### William V. Stowell

It's a vast contrast between Mariner Sergeant Bill Stowell of 1943 and the Bill Stowell of 1950 that many of us know as the Graphic Aide-Illustrator in the Business Administration Branch.

Since his "teen age" era, Bill has had a yen for drawing, sketching and drafting. This natural leaning makes it easy to understand how, as a kid in Chicago and New York City, sales promotion through the use of graphic aids and illustrations became Number One on his vocational menu.

The Japs' sneaking attack on Pearl Harbor temporarily distorted this idea, however, and fourteen days later, he was Pvt. Stowell in the First Battalion of the Fourth Marine Division. The Marines made temporary use of the training and ability that he had in illustration work and assigned him the task of working out educational charts of new weapons for visual aid purposes in their training program.

Doing this sort of thing apparently lost some of its appeal as indicated by his request for combat duty. He left the States en route for the Asiatic Pacific area in November, 1943. The next two years gave him his share of combat operations. He participated in action against Japanese forces at Roi Island in the Marshalls; Saipan in the Marianas and at Iwo Jima.

Out of it all, he received a wound in the left wrist - and at that he considers himself quite fortunate. If it had been his right wrist or hand, Stowell's yearning for illustration and art work would have been just a memory.

After discharge in 1946, Bill returned to King's Point, New York, as a Technical artist with the U. S. Merchant Marine Academy.

He soon realized the logic behind the plea of the late Horace Greeley. After a migration across the continent, Stowell performed temporary duty with RKO Picture Studios as a Greensman Landscape Set Dresser. He was intrigued with the finesse of the movie industry, but the periodic lulls in between pictures made it a bit difficult to eye the grocer without squinting.

He was with the Western Stores as an Artist on laying out retail ads and display arrangements when the CAA bargained with him. In his present assignment, he performs precision drawings, pamphlet layouts and general illustrative material for various segments of the Regional Office.

Since he's married to the former Valerie Claire of New York, the Stowells spend any elongated vacations "back East".

#### SUMMARY OF REGIONAL ADMINISTRATOR'S STAFF MEETING

July 31, 1950

##### Military Status:

The Regional Administrator advised that proposed legislation to militarize CAA has been prepared. It has the concurrence of the Department of Defense and is being submitted to the Budget Bureau for transmission to the Congress. Mr. Nyrop, Deputy Administrator also advised that a conference has been scheduled with top officials of Air Force, Navy, Marine Corps, and Army to obtain temporary deferment on active duty orders for CAA personnel pending action on the proposed legislation. It is anticipated that after the legislation becomes effective, the cases of individuals holding Reserve status will be reviewed to determine where that person can best serve the national interests.

##### Arizona State Aeronautics Authority:

The Regional Administrator reported on his meeting with the recently established Arizona State Aeronautics Authority which was created by action of the State Legislature during its last session. The Governor has appointed the following persons to serve on the State Aeronautics Authority; Matt Baird of Tucson, Chairman; H. O. Nelson of Arizona Airways, Phoenix; Ralph Radcliffe, Station Manager for American Airlines, Tucson; Grant McCurdy, Manager, Bisbee-Douglas International Airport, and Frank Beers, Attorney, Phoenix. The authority of this newly created body is limited and their funds are limited; however, they wish to do everything they can in the interests of advancement of aviation in the State. On the basis of the discussion, and suggestions made, the Authority requested that they be informed concerning the CAA airport plan and program for the State of Arizona; that they be furnished a digest of regulations for dissemination to local law enforcement agencies within the State and that they be provided with information concerning air marking. Appropriate Division Chiefs were requested to furnish the above informa-

tion to the Authority and all Divisions were requested to keep that agency advised of aviation matters affecting the State.

#### Survey of Fixed Base Operators:

A letter from Mr. Nyrop on this subject was read. Statistical data to be obtained on all fixed base operators in the Region. Copies of forms were received for compilation of the data and these will be duplicated and distributed to airports and operators. The Aviation Safety District Offices will be requested to assist in obtaining full coverage.

#### American Red Cross:

The Regional Administrator called attention to a letter from the Los Angeles Chapter of the American Red Cross placing additional stress on the Blood Bank and the need for donors. The CAA has been requested to sponsor another mobile unit blood bank. Mr. W. O. Johnson was appointed a committee of one to contact the Red Cross and obtain full information.

#### Developments at San Francisco Airport:

The Regional Administrator reported that he had been contacted by George Dixon, Manager of the San Francisco Airport, with respect to final coordination of some of their airport construction plans, including the Administration Building, the runway lighting, and the approach lighting. Since utilization of the new facilities will involve Airways Operations and Safety Operations, as well as Facilities and Airports, Mr. Read will arrange a conference at San Francisco Municipal Airport to effect coordination with all affected interests.

#### Work Programs:

The Regional Administrator called attention to the fact that only three Divisions had submitted written work programs to date -- Business Administration, Airports, and Legal. The other Divisions were requested to complete their reports in accordance with the fiscal programs we now have.

#### Annual Leave:

The Regional Administrator requested that the leave schedule be brought up to date. Division Chiefs are to notify his office of any change in dates.

#### Division Status Reports:

The Division Chiefs reported on the status of current items in their respective divisions. These items will be covered in the monthly activity reports.

### INSPECTION OF SURPLUS MILITARY AIRPORTS

The CAA has been notified by the Department of Air Force that certain surplus military airports assigned to local communities will be inspected in the immediate future for possible military use or occupancy. An Air Force survey team will make the inspection in cooperation the the CAA regional administrators.



## QUESTION BOX?



- Q. Due to the installation of new equipment at my station, I have immediate need for several supply items which are not presently included on my Standard Allowance-Record of Consumption. Is it mandatory that these items be obtained by submitting Form 6-170-213, Request for Change in Standard Allowance, or may I requisition the items and ask for a revision of the Standard Allowance at a later date?
- A. Items urgently needed may be requisitioned on Form ACA 1660. However, action should be taken within a reasonable period of time to request that the Standard Allowance-Record of Consumption be revised, in order that the items may be furnished automatically under the station stock control plan. It is desirable to reduce the number of requests for changes to a minimum. For that reason, it would be better to submit a consolidated request listing a number of changes to the allowance, rather than to submit individual requests each time minor changes in the allowance are made.
- Q. What is the employee's liability when incurring an illegal obligation by issuance of a field purchase order?
- A. This question will be answered in two parts based on specific facts in different types of cases.
1. There is an existing contract for bulk gasoline at a stated cost per gallon. The employee erroneously places an order for gasoline with other than the contractor at a higher unit price per gallon. In this instance, the Government will pay the vendor from whom the gasoline was ordered an amount no greater than the contract price and the order price is on the employee who erroneously placed the order. Any collection for the difference in price is to be made by the vendor from the employee placing the order.
  2. There is in existence a "mandatory" contract which requires that all items enumerated in the contract shall be purchased from the contractor. In this case, when an employee erroneously places an order for an item covered by the contract with other than the contractor, the employee is liable for the total cost of the item purchased since under the terms of the contract, the Government is required to make all purchases from the contractor except in cases of emergency

In the above instances, an order may be placed outside of a contract if a bonafide emergency exists, necessitating immediate purchase and time will not permit making a purchase from the contractor. The Comptroller General has defined "emergency" as being for the protection of life or property. Therefore, merely failure to foresee the necessity which resulted in a created emergency would not relieve the agency from making the purchase under the contract.



## FIELD NEWS

DEAR EDITOR

*WE HAD AN INTERESTING EXPERIENCE LAST WEEK.*

### OAKLAND

Center: The Oakland Center recently experienced what might be called, "Lose an Engine Day". On Saturday, July 15th, at approximately 12:10 a.m., the Caroline Mars, en route from Honolulu to Alameda advised the center that they were "feathering" No. 2 engine. They further advised that they were not in an emergency status and did not require an escort. At this time the Mars was approximately 600 miles off-shore. As a precautionary measure the center passed this data to the Coast Guard, FCC and the Air Force Air Rescue Unit. Approximately 30 minutes later, the Mars advised that they were "feathering" No. 1 engine due to an oil leak, and requested that they be intercepted. The Oakland Center immediately alerted the Search and Rescue agencies and within nine minutes one Coast Guard and one Air Force rescue aircraft were on their way. These aircraft were the converted B-17 type which carry a life boat to be dropped by parachute.

At approximately 11:00 p.m. the Mars advised that they were down to 3,400 feet, still losing altitude and that ditching appeared probable. It was obvious at that time, that the search aircraft could not perform an interception unless the Mars could stay aloft for about two hours. Everyone began "sweating it out" The next communication received indicated the Mars had stopped the descent and was maintaining an altitude of 3,500 feet and cruising at an airspeed of 98 knots. At this time, rescue aircraft instructed the Mars to fly a certain Loran line and establish themselves on the same line outbound. Thus interception was insured and took place at 2:53 p.m.

Two more rescue aircraft were dispatched, one by Coast Guard and one by Air Force, making a total of four search and rescue aircraft involved in the incident. From the point of interception until the Mars was approximately 80 miles off shore, the operation appeared to be running smoothly when the Mars advised another engine was acting up and ditching appeared to be in order. The Coast Guard gave the Mars ditching instructions. It was decided that the Mars would dump 500 gallons of fuel and ditch the aircraft off shore near Point Reyes. This was about 5:20 p.m. At about 5:30 p.m. a Coast Guard seaplane involved in the operation lost an engine and was forced to abandon the operation. The Coast Guard was able to get the lost engine started, shortly after the failure and returned to San Francisco safely.

The Coast Guard dispatched three surface craft to the possible ditching point and all concerned began another period of "sweating". At 5:58 p.m. the Mars advised their altitude was 1,900 feet and that Mr. Tamalpais was in sight.

At this time, they decided to try for San Francisco Bay. The engines held on and at 6:16 p.m. the Mars landed at Alameda.

While the above operation was going on three other aircraft experienced similar difficulties. An Air Force B-26 en route from Fairfield to Honolulu experienced engine trouble in the vicinity of the Farallon Islands and was forced to return to Fairfield. At 2:30 p.m. a Transocean DC-4 lost an engine approximately 500 miles off shore. This aircraft was en route to Oakland. At 3:00 p.m. an Air Force B-29 weather flight en route to Fairfield reported losing an engine approximately 500 miles northwest of San Francisco. It appeared for a while as though the Coast Guard and Air Force were going to have to call out the reserves but all of these aircraft were able to continue flight and land without declaring an emergency.

Although CAA participation in the Mars incident, after the original alert was accomplished, was of a minor nature, it was interesting and enlightening to witness such a smooth and efficient operation as was conducted by the search and rescue agencies. The incident should further serve as evidence to other Transpacific pilots the type of service they may expect should they encounter a similar difficulty.

The Korean incident is being felt in the Oakland Center. The tempo of activity has been steadily increasing due to Transpacific operations and work with the Western Air Defense Command. This center is making preparations to meet a heavy workload on a 'round the clock basis.

Tower: There seems to be a story floating around here about some ducks, a United Air Lines DC-6 and a Controller. The actual facts of the incident have become a little hazy. They only appeared in three of the local newspapers and in a detailed account in the Port of Oakland Press Release. According to these sources, the DC-6 was Flight 619 from Denver, Colorado; the pilot was Captain Virgil Vaughn; and the Controller Joseph L. Clothier. The ducks involved weren't in captivity long enough to find out their names; but, when they were caught, they did a lot of quacking.

In taxiing to the gates, 619 passed in front of the Tower. Everything appeared normal until the flight started to slow down and finally came to a full stop. We took a look-see and there was mama duck with three little quackers all in line passing in front of the DC-6.

Now that was a landing without proper authorization from the Control Tower. Something had to be done and Clothier was dispatched to do it. He cornered them against a fence; and, despite mama's angry protests, placed them in a box.

Clothier was sure mama duck couldn't make the rest of the trip to the Airport Channel unaided since it meant crossing two highways; and, even worse, passing through Hangar 4, known to be the home of five large and efficient cats. So Clothier carried the duck family to the estuary and released them. There they swam away without even a quack quack thank you.

Insac: Our console was commissioned April 4, 1950 and the 111-A inter-phone equipment was completed June 29. All hands feel that the console is quite an improvement over the rack equipment, both from an operations and appearance standpoint. We could use another unit to good advantage and hope this will be installed before too long. —Our air-ground business is increasing right along and may soon be booming - if you know what I mean.

Oakland Airport Administration Building has had another face lifting operation. The sidewalk in front of the building has a new canopy, and a baggage roo has been erected on the right end of the canopy. Inbound passengers may now pick up their baggage right in front of the building and are protected from the weather while awaiting transportation. A big improvement.

An F6F pilot was unable to lower the second wheel of his plane the other day, so after cruising around the airport for a long time, he decided to retract the other wheel and made a belly landing right in front of the Ad Building, with plenty of spectators. Lots of fire every time the fuselage scraped on the concrete runway, and some flame underneath when the F6F came to a stop. The fire trucks were on the job and soon extinguished the flames. No injuries to the pilot.

Our neon approach light lane is soon to be replaced with a single row high intensity approach light system. The new lights will be installed on the existing platforms of the neon system, we understand. Probably the slope line type will be used, although no definite information is available at this time.

Our 5KVA Kohler engine-generator at the control station has been replaced by an 18.75KVA LeRoi from San Francisco, which gives us plenty of power for all our needs. The 18.75KVA LeRoi at the SBRA station has been replaced by an 8KVA Duplex. After receiving an overhaul at the Depot, the LeRoi will be shipped back to Oakland to furnish standby power at the new ASR facility now under construction.

During the past month overall communications activity at Oakland INSAC has shown a tremendous increase. Flight plan relays have about quadrupled over January, 1950. May have to ask for more help if business increases.

MTIC: A few weeks ago the MTIC at Oakland had a special request from the Sperry Gyroscope Co. representatives. This request was to render continuous service of the ILS system for a period of one week in order that a series of flights could be made with a plane equipped with the new Sperry Zero Reader. The Sperry Company was on a tour to publicize the new equipment and had a plane especially equipped with the new device with indicating instruments mounted in the cabin of the plane so that the passengers could see what was happening during the approach. The Oakland ILS was complimented because of it's excellent performance during these flights. As a result, the entire Maintenance personnel were invited along for one of the test flights. This proved to be very interesting and it is believed that the service rendered to the Sperry company helped to create a feeling of good will between this office and the Sperry Company representatives.

Maintenance Technicians at Oakland are devoting two evenings a week to study and review of mathematics in preparation for attendance at Aeronautical Center Radio Aids classes. The semi-weekly classes are conducted by Technicians T. L. Duncan and G. W. Henke, both graduates of the Aeronautical Center course. The study is slanted toward that particular phase of mathematics applied at the center.

ASDO: Has any other office had a pilot parachute from a rented aircraft, then disappear and not be heard from? This happened July 3, 1950, when an Air Force Officer rented an aircraft at Fairfield, California, and, upon running out of fuel, abandoned the plane near Hayward. The aircraft hit a partially finished home, doing considerable damage to the house. The pilot was seen with his parachute under his arm walking across a field, but he has failed to report back to the Air Force Base.

#### LAS VEGAS:

Tower: The Las Vegas Weather Bureau released a radiosonde balloon at 1900 DST on July 1 and tracked it to an altitude of 60,000 feet, having no further interest in it above that altitude. At 2218 DST, 3 hours and 18 minutes later, the Controller on duty in the Control Tower noticed a parachute descending from above the airport. Before emergency equipment could be alerted, Controller identified it as a radiosonde balloon chute and radio and watched it land just 50 feet from the point where these balloons are released. The Weather Bureau was notified and after examining it, identified it as the same one released 3 hours and 18 minutes earlier. Making it more unusual was the fact that a 10 to 15 mph surface wind had been blowing from the same direction during the entire evening.

Now open for occupancy, but lacking a few finishing touches are the motels located on McCarren Field and operated by Alamo Airways. Pilots may now land at Las Vegas (McCarran Field) and receive tie-down, motel, automobile and an early breakfast for a flat rate.

Scheduled for completion in the next thirty to forty days is the new runway at McCarren Field. This new runway will be 4,500 feet long and will supplement the two 6,500 feet runways we now have.

Insac: The installation of the console has been completed for several weeks. Everyone is pleased with its operation. The removal of the receiver racks to the back room has greatly improved the appearance of the operating room. We believe that we have the best operating quarters of any station in the Region and possibly in the entire nation.

One of the fixed-base operators at McCarran field has started an air-taxi service which is proving to be successful. He is advertising any place in the United States in less than 24 hours with fares about that offered by scheduled coach service. This operator has one Beechcraft Bonanza, one Cessna and one Navion, but plans to add three or more aircraft in the near future to handle requests for service.

Our public relations are at its peak. We have a very effective Sheriff's Aero-Squadron and splendid cooperation exists between local, county, state and federal law enforcement personnel. Recently the rangers at Boulder City picked

up a man for questioning and later released him. Shortly after his release they discovered he was wanted for armed robbery. After his release, it was learned he had chartered a plane at Boulder City for airport in the San Bernardino area. The local Sheriff's office requested our assistance in trying to locate the aircraft. Daggett INSAC stated that the plane had just checked in just West of that station en route to Riverside. This information was relayed to the local Sheriff's Office who was in contact with the Pasadena police. Later the plane contacted Riverside radio and stated he was landing at the Tri-City airport. Through the coordination of the CAA communications and local Sheriff's office, the wanted man was arrested on his arrival at Tri-City Airport.

A few weeks ago, ACCOM Cloninger frantically heard an aircraft calling on 3105 kos stating that he was having landing gear trouble and could not read McCarran tower. The tower stated that they had him in sight and that one wheel was up and the other down. The pilot advised that he had plenty of fuel and would try to jar the other wheel down. A safe landing was made. The relaying of the information the communicator between the tower and the pilot was instrumental in calming the pilot who was extremely "rattled" when first contacted.

Our recent Private Pilots Conference was considered successful. Some 150 pilots attended. The cooperation of the newspapers, Chamber of Commerce and local fixed-base operators went all-out to make it a success. The "99" Women Pilot's club furnished the refreshments and George Crockett painted some very effective signs that were used in the demonstrations. As a result of this and other such conferences throughout the region, the number of flight plans filed, radio contacts and pre-flight briefings has increased considerably. Pilots are becoming more aware of our services available and they are making good use of it in planning their flights.

#### MFIC:

We are hoping that the conversion of our VAR range to a VOR will be started soon. This conversion may involve selection of a better site as the present one becoming surrounded with farm houses, windmills and power lines, all of which speaks well for the promotional ability of local real estate dealers but would undoubtedly have adverse effects on a VOR.

The Good Springs, Nevada Fan Marker has been changed over to an HW facility. This facility enables Bonanza Airlines to set a course around the mountain on their Las Vegas-Reno flights and thereby avoid Danger Areas which exist on the Northwest course of the Las Vegas range.

Equipment maintenance problems are of the usual routine nature with the exception of a couple caused by the weather; high winds in the early part of the summer bent the antennas and pulled them loose at the INSAC and Tower, the tower installation being the hardest hit. High temperatures this summer have caused the thermal protectors in the VAR range to operate which momentarily interrupts the transmitter in operation.

### ELKO:

Insac: This station has experienced a doubling in the number of aircraft contacts recently and in spite of this, everyone seems to be flying safe and sane. We have had no emergencies or aircraft in distress.

Several oil companies have been active locally doing considerable high altitude aerial photography and low altitude magnetic sounding chart work. The pilots in this area doing work of this kind, report that the aeronautical charts are inaccurate to such an extent that considerable difficulty is being experienced. The consensus is that if the Government would obtain the information gathered by the oil companies, accurate charts could be published.

On a field trip to Wells, Nevada it was noted that there was no airport communications available for itinerant pilots to use to obtain servicing. The city officials were contacted regarding the possibility of some means of communications being furnished. We have recently heard that the city council has started negotiations with the telephone company for a telephone to the airport.

MTIC: Radio tests have recently been conducted at a remote site which we hope will result in installation of equipment to permit adequate coverage for high frequency reception, and VHF transmitting and reception. Coverage from the check site was excellent to Wells and to points considerably East of Lucin.

A recent interference problem was encountered which resulted in complete blocking of the receiver on 3105/3117.5 and 4495KCS. The condition occurred mostly during the early morning hours. Through the cooperation of the local Power Company personnel and the Radio Interference representative of the City of Elko, the trouble was found and corrected. A series of neon tube roof lighting displays were found to be the source.

Of note to some personnel will be the construction of numerous Micro-Wave repeater stations by the Telephone Company. The chain of stations very nearly follows the Airway from Salt Lake through Elko to Reno. Their construction program is well under way, with the building nearly completed at a site adjacent to the beacon located ten miles West of Wells, Nevada.

### BURBANK:

ASDO: Non-scheduled air carriers certificated under CAR 42 and operating Douglas C-54's have contributed aircraft to the Fairfield-Tokyo Lift. This operation is under the supervision of the Burbank District Office, in coordination with the San Francisco International District Office.

Three non-scheduled air carriers are transferring their base of operations to Burbank, two being from the east coast and one from L. A. International Airport.

California Central Airlines has acquired a Douglas C-54 formerly operated by Chicago and Southern Airlines. This aircraft is now on the Fairfield-Tokyo Lift.

A large number of scheduled air carrier personnel are in flight and ground training on the Constellation at Lockheed Aircraft Corporation, Burbank, Calif.

In accordance with a request by San Francisco International District Office, we have conducted inspections on a number of P & W 4360 engines for Pan American Airways during their overhaul at Pacific Airmotive Corporation. These inspections are in connection with Pan-American's request for an increase in overhaul time.

Pacific Airmotive Corporation and Grand Central Airport Company are tooling up for a big F-51 modification program.

Payloads on non-scheduled airliners are increasing rapidly, as evidenced by full passenger lists on all trips out of Burbank and full airplanes coming in from the East.

On July 17, this office received a telephone call from Whiteman Airpark, Pacoima, informing us that a large object was seen to fall from an airplane. Agent Fydell was dispatched to the scene and found the part to be an enforced metal piece approximately 30" wide and 10' long in the general shape of a nacelle or bomb bay door. Close examination of the area in which it was found failed to disclose any additional pieces. From the data plate attached to the fallen part, it appeared possible that the part was from a North American Aviation Aircraft, and from the model number, possibly one undergoing tests by either North American or the military. It developed that the part in question was a bomb bay door lost from a B-45 during tests and it was subsequently picked up by representatives from North American Aviation.

#### DIVISION HI-LITES

##### Aircraft Division:

The accelerated service test program for the Aero Design Model L-3805 airplane was completed and Type Certificate No. 6A1 was issued on June 30, 1950. This company may submit a production version of this airplane for type certification. Preliminary information indicates that the new airplane will have a longer fuselage, revised control surfaces and systems, a different powerplant, a revised wing structure, and a new nose landing gear. It is understood that the gross weight may be reduced in the production airplane; however, the structural weight of the airplane is also being reduced, with the net result that the useful load is expected to be increased.

Technical data are being submitted by Consolidated Vultee for their Model CV-240-23 which is similar to other CV-240 aircraft except for the incorporation of 250 gallon integral fuel tanks in each outer wing and necessary structural reinforcement for the landing conditions. The basic data for this aircraft provide for take-off and landing weights of 41,790 lbs. and 39,800 lbs., respectively. It is expected that this airplane will be presented for CAA flight testing in the very near future.

CAA flight testing of the Douglas Super DC-3 has been completed and Type Certificate No. 6A2 was issued on July 24. The first airplane was delivered to Capital Air Lines on July 24 and it was understood that Capital plans to put this model in service immediately.

Meetings were held with representatives of the Douglas Company, Capital Air Lines, and CAA to develop recommended maximum initial overhaul times for this model. Aviation Safety Agent Milliken of Region I participated in these conferences. Agreements were reached during these conferences which were satisfactory to all concerned, and it is expected that the Washington Office may be able to approve the maximum initial overhaul time recommendations without calling an industry meeting in Washington.

#### Safety Operations Division:

Bonanza Airlines' application for night and instrument operation on their route Las Vegas to Reno is expected to be approved this week. A proving flight was conducted in June. Certain unsatisfactory items have been just now corrected.

Agents of the Los Angeles Aviation Safety District Office participated in Frontier Airlines proving flight June 20 on their approved route Winslow, Arizona, to El Paso, Texas, via Safford. The operation was approved on a VFR day basis and is presently being operated on a daily basis.

A. C. Barnard, Flight Operations Specialist of the Aeronautical Center, Oklahoma City, has, for the past two weeks, been assigned temporary duty in the Los Angeles District Office. His assignment was for three weeks and he has been utilized as a Flight Operations Agent for routine duties with the air carriers in this vicinity.

Agents of the San Francisco District Office participated in United Air Lines survey flights Salt Lake City - Burley via Promontory Point H Facility on Red Airway 54 and the route was approved for instrument operation following these flights.

The present world situation has created an increase in the certification of flight radio operators, and Flight Operations Branch has been assisting in processing applicants. There have been approximately twenty-five inquiries and, from this number, approximately ten certificates have been issued in order that sufficient personnel would be available for the Pacific Air Lift. Because of the urgent need at this time, interviews are being conducted in order that suitable qualified personnel may be considered as designee examiners.

A demonstration of new electronic test equipment, which is being developed by the Car-Lane Electronic Development Company and manufactured by the American Electroneering Corporation, was witnessed at the CAA Hangar last week. This equipment is being designed as a portable test unit to ascertain the operating acceptability of the omni, localizer and glide slope receivers in the aircraft. If the aircraft equipments do not fall between the "Go or No Go" tolerances, the equipment will then be removed for shop servicing. The results of this test were very encouraging, but there still remains some refinements. Another demonstration will be given in the near future.

Mr. Guy L. Arnold of the Flight Navigator Section, Airman Division, visited the Sixth Regional Office on June 29. Various problems pertaining to non-flight personnel were discussed with the Chief, Airman Standards Branch. Mr. Arnold attended the Institute of Navigation's annual meeting in San Diego on June 29-30 and July 1. The Oakland District Office and the navigation supervisors of Pan

American World Airways, Inc, United Air Lines and Transocean Air Lines were visited on July 3. While in the Bay Area, Mr. Arnold made a trip to Honolulu via Pan American and returned by United Air Lines for the purpose of observing navigational procedures followed by each of the companies over this route.

As a result of industry-CAA conferences, a "Maintenance Standards Plan" has been instituted at United Air Lines for a trial period of nine months. This procedure establishes overhaul periods of the various components automatically, based on a numerical rating obtained from service records of the units involved. Two other air lines, TWA and American Airlines, are also using a similar procedure for a like period. The results obtained by these air lines will determine the future course of determining overhaul limits for all air lines.

Considerable activity is under way in the San Francisco area due to the military situation in the Pacific. Scheduled and irregular air carriers are providing a good portion of the air lift. The maintenance of the involved aircraft is undertaken in the San Francisco (scheduled), Oakland and Burbank areas. This air lift is operated under Civil Air Regulations.

#### Assistant to the Regional Administrators:

The Advisor in Aviation Education participated in the Elementary Education Work Shop at the University of Arizona, July 10, 11, and 12, and gave a lecture on "Air Age Education", provided individual consultation, and organized and conducted an Operations Institute which was held at the Tucson Municipal Airport. Mr. Bob Schmidt, former Superintendent of the CAA Sixth Region Airports Division, assisted in the organization and worked out a plan whereby the local fixed base operators provided airplanes and pilots, and the Tucson Airport furnished the gasoline and oil for flights for forty-two teachers. Approximately 80% of this group had not flown prior to the Institute.

#### Regional Attorney:

Our General Counsel, Richard E. Elwell spent several days in the Regional Office during which time various policies and procedures applicable to the Regional Attorney's office were discussed.

#### Facilities Division:

Modifications to VOR ranges at Wells, Delta and Milford have been completed and flight checked and as result Wells and Delta have been commissioned for use. Milford will be commissioned as soon as minor equipment troubles are corrected. Grading at the Ukiah VOR site is being completed this week. The portable VOR range will be moved into position for a series of tests as soon as the equipment is returned by the Fourth Region.

Intermediate Fields at Buffalo Valley, Nevada; Grantsville and Fairfield, Utah; Secret Valley and Bagdad, California; and Cochise, Arizona have been discontinued and arrangements made to transfer portions of the lighting systems to communities in the area for installation and operation on local airports. Additional fields scheduled for discontinuance are Deep Lake, Arizona, Williams and Truckee, California. Negotiations are under way with local communities for the transfer of Williams and Truckee fields with installed equipment for operation in place.

The construction work for the ASR-2 installations at San Francisco and Salt Lake is nearing completion and the work at Oakland is well under way. It is now evident that the General Electric Company will not begin the radar equipment installations at San Francisco and Salt Lake on August 1st, or at Oakland on September 1st, as anticipated. No definite dates are as yet available. Salt Lake City, San Francisco and Oakland are presently listed as numbers 6, 7 and 12 on the National priority list under the ASR-2 contract.

Construction work on the Wells Intermediate Field has advanced to the stage of surface sealing. Resealing of runways at Winnemucca has been rescheduled to start August 15, 1950. The equipment modification and modernization at the Los Angeles Tower was completed during the month and the tower crews are now working at San Diego and Salt Lake City, where new towers were constructed by local authorities.

#### Airways Operations Division:

The Yuma INSAC was relocated to quarters in the new administration building June 26.

Messrs. Dodson and Marcum of the Washington Office visited the Communications Stations at Salt Lake, Ogden and Fairfield during the week of July 10 to gather preliminary information to be used in developing a new workload formula for stations.

Preliminary training is in progress for combined INSAC/tower operation at Las Vegas, Reno and Santa Barbara. The Division Chief visited Las Vegas and Santa Barbara to discuss preliminary arrangements for the combined activity. He intends to visit Reno sometime in August.

Due to budgetary restrictions, it was necessary to discontinue 21 communicator positions June 30. Also, it was necessary to arrange to discontinue the INSACS at Fairfield and Silver Lake as of July 31. Reduction in force was necessary since all these positions were filled. Arrangements were also made, because of the budgetary restrictions, to reduce the hours of operation of the Bakersfield Tower from 24 to 16, effective early in August.

Mr. E. V. Shores, representing the Communications Division in Washington visited the San Francisco OFACS and the Regional Office. He is primarily interested in radio frequency problems to prepare our position at the Hague meeting to be held within the next few months.

#### Airports Division:

A conference of District Airport Engineers was held in the Regional Office July 20 and 21. A tentative construction program for FY 1952 was developed. Problems concerning current operations and coordination of activities with other Divisions were discussed and recommendations will be made concerning them.

At the request of the Administrator, Region 6 located a crash truck for transfer to Wake Island. The truck was declared surplus by the Atomic Energy Commission and through the coordinated efforts of the Sixth and Seventh Regions, was made available at a very favorable price. The 9th Region has accepted

the truck for modification and purchase and shipping of same is now in process.

Final plans and specifications were approved on the Los Angeles International Airport FIDO modification project and the City was authorized on July 17 to advertise for bids.

Architects have been formally notified to proceed with the plans and specifications for the Phoenix Sky Harbor terminal building and will expedite.

Project applications were received for work at Ajo and Flagstaff, Arizona, Los Banos, and Sacramento, California, totaling \$72,010.

Grant offers were issued on projects at Auburn in the amount of \$3,000 and at Modesto in the amount of \$11,243.

Grant offers were accepted for projects at the following locations:

Auburn	\$ 3,000
Borrego	9,745
Corning	3,772
Happy Camp	32,150
Jackson	4,710
Modesto	11,243
Oakland	395,000
Palmdale	83,488
Redding	5,458
Sacramento	100,043
Santa Barbara	50,888
Yuba	7,000
	<hr/>
	\$706,497

#### Business Administration Divisions:

##### Project Audit Branch:

The Chief of the Branch returned from Arizona where he made field audits of:

Phoenix Sky Harbor Municipal Airport - Project 9-02-011-010  
Bagdad Municipal Airport - Project 9-02-023-901

##### Aircraft Service Branch:

Wiring of the Hangar mobile auxiliary power unit has been started. This project is now 50% complete.

In compliance with a request from the Oklahoma City facility, a complete review of all stock has been made and quantities furnished for the reduction, increase, and additional items desired under the stock replenishment system.

### Personnel Branch:

A complete listing of the efficiency ratings for the March 31st regular rating was forwarded to the Central Efficiency Rating Committee. The percentage results for the last rating year indicated: Excellent, 5.3%; Very Good, 71.6%, Good 22.9%; Fair .1% and Unsatisfactory .05%.

### Accounting Branch:

Travel Orders have been issued to all divisions except the Airways Operations which were held up pending a decision by the Regional Administrator on per diem. Travel obligations for regular travelers have been established but in many instances intermittent travel has not been obligated due to the late release on instructions on submitting Forms ACA 1261.

### Property Management Branch:

In response to a Washington circular letter, an inventory of teletype equipment on hand in the Sixth Regional Warehouse was taken. The inventory was coordinated with the Facilities Division, who made recommendations as to the quantity of each item to be retained in the warehouse for exchange and repair purposes. The inventory, with the exchange and repair information and excess quantities of each item listed, was forwarded to W-358B with a request for instructions for disposition of the excess items.

The warehouse cycle replenishment review was started during the week ending July 31. The Reviewing Committee completed action on all items in Class 02, Engine Generator parts. The review of Class 09, Radio Tubes, which is also in the first procurement group, had previously been completed and forwarded to the Washington Office. Indication has been given by W-190 that purchase orders for radio tubes were released July 21.

### Procurement:

Proposal 6-51-83 for construction of VOR Radio Range Facility at Coalinga, California, was mailed to prospective bidders July 28. Bids will be opened August 15, 1950.

Sievers Construction Company, Bellflower, California, submitted only bid received in response to Proposal 6-51-78 for enlargement to the existing Watchhouse Facility on Hanksville, Utah, Intermediate Field. Contractor's quotation is in the amount of \$10,129.

Three bids were received in response to Proposal 6-51-76 for installation power and control lines and replacement of square antenna house with plastic shelter at Fresno Radio Range Facility. Low bid in amount of \$2,240.35 was submitted by Lee Wilson of Los Angeles.

Four bids were received for relocation of Salt Lake City VOR Radio Range Facility under Proposal 6-51-75. Roy Kashner Company of Inglewood, California, was low bidder in amount of \$14,614.70.

Five bids were received for modification of High Intensity Slope Light Lane at the Los Angeles, California, International Airport under Proposal 6-51-82. Ed Seymour of Long Beach, California, submitted low bid in amount of \$2,366.10. Contract documents were forwarded to the successful bidder on July 28 for completion and it is anticipated notice to proceed will be issued approximately August 10.

#### CAPITAL GLEANINGS

There have been many new developments in view of the Korean situation. The Defense Department is planning to hire a minimum of 236,978 civilians, broken down as follows: Army, 109,378; Navy, 79,400 and Air Force 48,200.

The President will approve very soon a Civil Service Commission recommendation that all war service and temporary appointees who have had at least two years of continuous service be blanketed into permanent status jobs. Requirements will be that the employee pass an appropriate noncompetitive test, have an efficiency rating of good or better and be recommended for status by their agency.

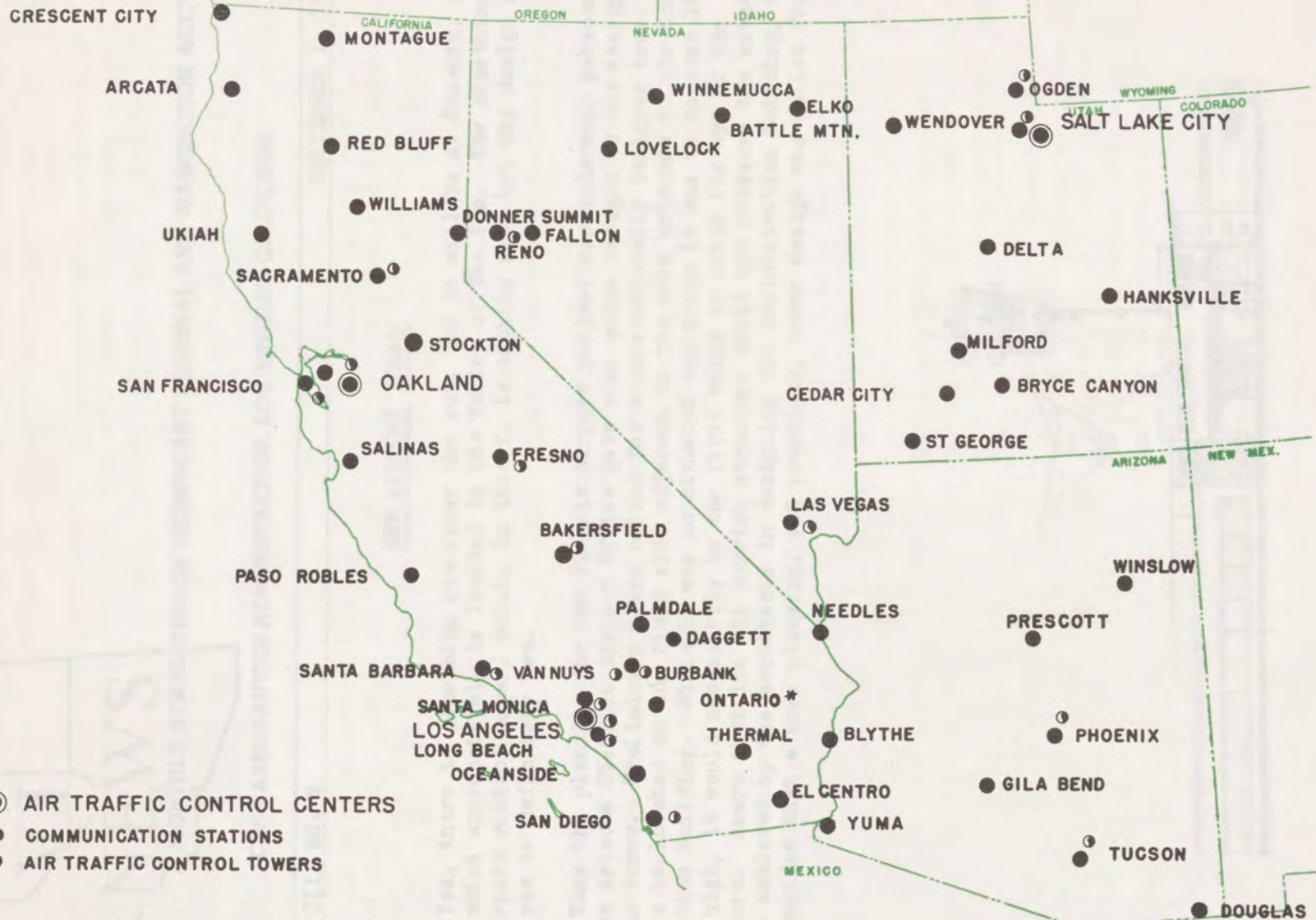
Although no general order placing all Federal workers on a longer work week is now contemplated, thousands of employees in war agencies have been placed on longer week, receiving paid overtime beyond 40 hours in any one week.

Unless things get much more serious than at the present time, there will be no general order curtailing or restricting vacations or annual leave.

The bill revising the present efficiency rating system is near approval, having passed the House, Senate Post Office and Civil Service Committee. Under this bill, there would be three new adjective ratings - Outstanding, Satisfactory and Unsatisfactory, replacing the present ratings of Excellent, Very Good, Good, Fair and Unsatisfactory.

The Civil Service Commission is working up plans covering all phases of Federal employment for possible use by the President if he may care to use them. These plans include compilation of a list of essential jobs where there is an actual or threatened shortage with a view to recommending draft deferments for many employees in these jobs; a policy aimed at putting reservists in jobs where they can contribute most. In this connection, reservists who could be released would be subject to immediate induction while those in essential jobs would be given about six months to report for duty; a possible "job freeze" on employees in essential work by restricting transfers to less essential jobs in other Federal agencies; possible return to a war service system of recruiting and hiring contemplating the suspension of permanent appointments for the duration, except those covered in the second paragraph above.

# COMMUNICATION & ATC FACILITIES



\* RIVERSIDE MOVING TO ONTARIO AS OF AUG. 7, 1950

AS OF JULY 30, 1950